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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/401,632	09/22/1999	RANDALL L. SCHLESINGER	1999P82176US	4918

7590 09/12/2005

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

WILLIAMS, CATHERINE SERKE

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/401,632

Applicant(s)

SCHLESINGER ET AL.

Examiner

Catherine S. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 15-17, 19, 20, 22-26, 28-36, 44 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48-50 is/are allowed.
- 6) ☒ Claim(s) 1-9, 15-17, 19, 20, 22-24, 26, 28-36 and 44 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of some of the claims is withdrawn in view of the newly discovered reference(s) below. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

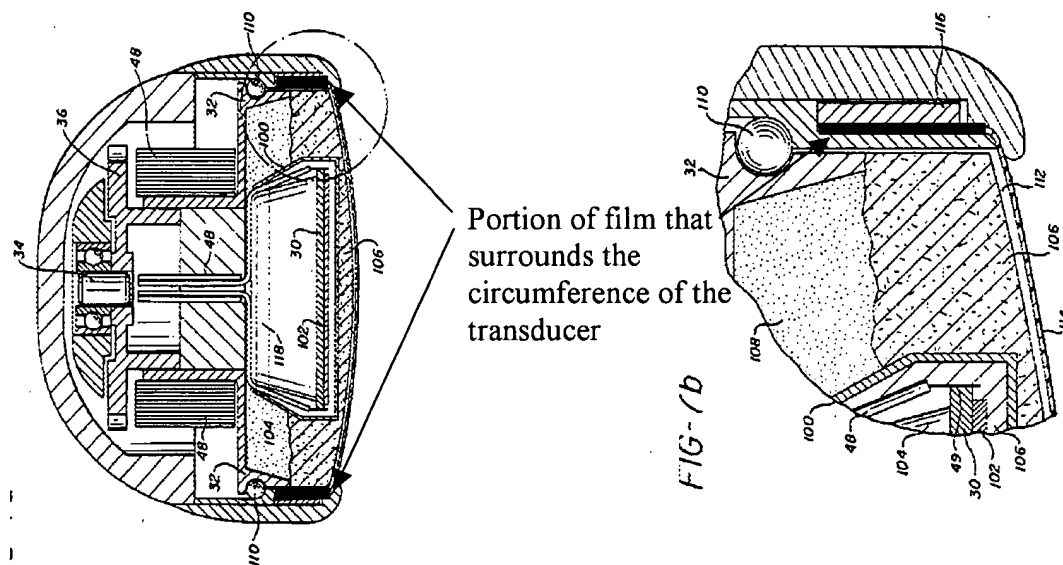
Claims 15-17, 19, 22 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Gruner (US Pat# 5,634,466).

Gruner discloses a medical diagnostic ultrasound catheter including a shaft (see fig 1), an ultrasound transducer (30), a lens (106), and a dielectric solid film (114). See figures 7a-7b. The film is positioned between the window and the ultrasound transducer. The film comprises a thin tape-like material of Mylar sheet. As shown in figure 7b, the film 114 is adjacent an emitting surface of the transducer and wraps around a portion of the circumference and at least one end of the transducer.

Regarding the new claim language, the device also includes the shaft including a tip portion (14), the transducer connects with the tip portion (the transducer is contained within the tip and thereby connects with the tip), and the dielectric film surrounds a circumference of the transducer (see below).

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As shown in figures 7a and 7b, the dielectric film (114) covers the entirety of the emitting surface of the transducer. As more clearly shown in figure 7b, the film (114) extends beyond the emitting surface and is bent to extend around the peripheral circumference of the transducer. It is this bent portion that reads on "surrounds a circumference". The figures are reproduced below and the film portion that surrounds a circumference has been highlighted.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruner in view of Dunham (US Pat# 5,762,067). Gruner meets the claim limitations as described above but fails to include the thickness of the film.

Dunham discloses an ultrasound endoscopic probe that includes a shaft (see fig 1), an ultrasound transducer (130), a lens (160), and a dielectric solid film (164). See figure 10. Mylar membrane 164 is 0.1 mils thick. As shown in figure 10, the film 114 is adjacent an emitting surface of the transducer.

At the time of the invention, it would have been obvious by one skilled in the art to incorporate the teaching of the thickness of the film by Dunham into the invention of Gruner. The devices are analogous in the art and with the present invention; therefore, a combination is proper. Additionally, Applicant has failed to state why the particular thickness as opposed to other thicknesses of thin films solves a stated problem, is used for a particular purpose or provides an advantage. One of ordinary skill in the art, furthermore, would have expected the film of Dunham and applicant's invention, to perform equally well since both films are generally thin and both would provide the insulation desired.

Claims 1-2, 4-8 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connor et al (USPN 5,398,689) in view of Garabedian et al (USPN 6,171,295). Connor discloses a probe that includes a conductor (26), a shaft (14), a braid (86), a tip (12) and an ultrasound transducer (27) within the tip portion. The braid is only in the shaft portion and not in the tip. See 4:55+. The braid is embedded within the shaft. See figure 2.

Connor meets the claim limitations as described above but fails to include the braid being made from a non-conductive material.

However, Garabedian discloses a composite reinforcement that includes a braid of LCP for enhanced flexibility and softness. See 2:33-34.

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At the time of the invention, it would have been obvious to one skilled in the art to substitute the metallic braid of Connor with the LCP braid of Garabedian. Both device are analogous in the art and with the instant invention; therefore, a combination is proper. Additionally, the motivation is provide by Garabedian in that the polymer of the braid enhances flexibility and softness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Connor in view of Garabedian. Connor in view of Garabedian meet the claim limitations as described above but fail to include a braid made from nylon.

At the time of the invention, it would have been obvious to make the braid of Connor in view of Garabedian from nylon. Applicant has failed to described how nylon is provided for a specific purpose, solves a stated problem or provides an advantage over other polymer materials. Additionally, one skilled in the art would have expected LCP or nylon to perform equally well considering both polymers would provide flexibility and torqability.

Claims 9,23,28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connor in view of Garabedian in further view of Gruner or Gruner in further view of Connor in view of Garabedian. Gruner and Connor in view of Garabedian each meet the claim limitations as described above but Gruner fails to teach the shaft with the polymer and Garabedian fails to teach the transducer with the film.

However, at the time of the invention, it would have been obvious to one skilled in the art to combine Gruner with Conner in view of Garabedian or Connor in view of Garabedian with

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Gruner. The devices are all analogous with the instant invention; therefore, a combination is proper. Connor in view of Garabedian provides an enhanced way to move and position the transducer of Gruner.

Allowable Subject Matter

Claims 48-50 are allowed.

Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

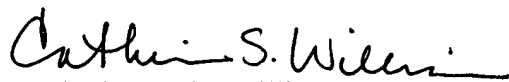
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine S. Williams whose telephone number is 571-272-4970.

The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas D. Lucchesi can be reached on 571-272-4977. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2192.



Catherine Serke Williams

June 28, 2005



NICHOLAS D. LUCCHESI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 5700